IN THE CLAIMS:

Please amend claims 42-45 and 48 and add new claims 78-82 as follows:

1-40. (Canceled)

41. (Previously presented) An enhanced VSB transmitter for transmitting main data and supplemental data comprising:

a pre-interleaver for pre-interleaving the supplemental data according to first parameters;

a first multiplexer for multiplexing the main data and the pre-interleaved supplemental data;

a main interleaver for [[main-]]interleaving the multiplexed data according to second parameters; and

a data format converter for formatting the multiplexed data interleaved by the main interleaver for transmission and transmitting the formatted data to one or more VSB receivers.

42. (Curretly amended) The ~~enchanced~~enhanced VSB transmitter of claim 41, wherein the pre-interleaver is a ~~convoulutional~~convolutional interleaver, and the first parameters are B1 branches and M1 bytes of unit memory.

43. (Curretly amended) The ~~enchanced~~enhanced VSB transmitter of claim 42, wherein the pre-interleaver is a ~~convoulutional~~convolutional interleaver, and the second parameters are B2 branches and M2 bytes of unit memory.

44. (Curretly amended) The ~~enchanced~~enhanced VSB transmitter of claim 43, wherein the B1 and M1 of the first ~~paramenter~~parameter and the B2 and M2 of the second ~~paramenter~~parameter are equal.

45. (Curretly amended) The ~~enchanced~~enhanced VSB transmitter of claim 43, wherein the B1 and M1 of the first ~~paramenter~~parameter and the B2 and M2 of the second ~~paramenter~~parameter are different.

46. (Previously presented) The enhanced VSB transmitter of claim 41, further comprising a first forward error correction (FEC) coder for coding the supplemental data and outputting the first FEC coded supplemental data to the VSB pre-interleaver.

47. (Previously presented) The enhanced VSB transmitter of claim 46, wherein the first FEC coder is a Reed-Solomon coder.

48. (Curretly amended) The enhanced VSB transmitter of claim 47, wherein the ~~supplemetal~~supplemental data comprises X bytes and the Reed-Solomon coder provides Y parity bytes, wherein a total of X and Y bytes is 184 bytes.

49. (Previously presented) The enhanced VSB transmitter of claim 41, further comprising:

a null data inserter for inserting a plurality of null bits into the pre-interleaved supplemental data, and

a header inserter for inserting a header into the supplemental data having the plurality of null bits.

50. (Previously presented) The enhanced VSB transmitter of claim 49, wherein the null data inserter inserts the plurality of null bits into each pre-interleaved supplemental data in a predetermined order.

51. (Previously presented) The enhanced VSB transmitter of claim 50, wherein the plurality of null bits are arranged at alternating positions within each pre-interleaved supplemental data.

52. (Previously presented) The enhanced VSB transmitter of claim 49, wherein the plurality of null bits are “0”.

52. (Previously presented) The enhanced VSB transmitter of claim 49, wherein the header inserter adds three bytes of header information to the supplemental data having the plurality of null bits, wherein the header information contains program identification.

54. (Previously presented) The enhanced VSB transmitter of claim 41, wherein the first multiplexer multiplexes the main data and the supplemental data according to a predetermined multiplexing information.

55. (Previously presented) The enhanced VSB transmitter of claim 54, wherein the predetermined multiplexing information is inserted in a reserved area of a field synchronizing signal or a data segment of the supplemental data.

56. (Previously presented) The enhanced VSB transmitter of claim 54, wherein the predetermined multiplexing information comprises at least one of a multiplexing ratio and unit.

57. (Previously presented) The enhanced VSB transmitter of claim 56, wherein the multiplexing unit and the multiplexing ratio are predetermined based on amounts of the main data and the supplemental data.

58. (Previously presented) The enhanced VSB transmitter of claim 56, wherein the multiplexing ratio of the supplemental data to the main data in the first multiplexer is one to one.

59. (Previously presented) The enhanced VSB transmitter of claim 56, wherein the multiplexing ratio of the supplemental data and the main data in the first multiplexer is one to three.

60. (Previously presented) The enhanced VSB transmitter of claim 41, wherein the first multiplexer is responsive to a field synchronizing signal used for synchronizing a data frame of the data format converter.

61. (Previously presented) The enhanced VSB transmitter of claim 41, wherein one field of the multiplexed data has 312 data segments and one field synchronizing segment.

62. (Previously presented) The enhanced VSB transmitter of claim 41, wherein the main data is MPEG data.

63. (Previously presented) The enhanced VSB transmitter of claim 41, further comprising:

a data randomizer for randomizing the multiplexed data; and

a Reed-Solomon coder for coding the randomized data.

64. (Previously presented) The enhanced VSB transmitter of claim 41, further comprising a Trellis coder for converting the multiplexed data interleaved by the main interleaver into symbols.

65. (Previously presented) The enhanced VSB transmitter of claim 41, wherein the data format converter comprises:

a second multiplexer for multiplexing the multiplexed data interleaved by the main interleaver with a field synchronizing signal and segment synchronizing signals;

a pilot inserter for inserting pilot signals into the data multiplexed by the second multiplexer;

a modulator for modulating the symbol data having the pilot signals into a signal of an intermediate frequency band; and

a RF (Radio Frequency) converter for converting the modulated signal into a RF band signal for transmission.

66. (Previously presented) A method of transmitting main data and supplemental data, the method comprising:

pre-interleaving the supplemental data according to first parameters;

multiplexing main data and the pre-interleaved supplemental data;

interleaving the multiplexed data according to second parameters;

formatting the interleaved multiplexed data for transmission; and

transmitting the formatted data to one or more VSB receivers.

67. (Previously presented) The method of claim 66, wherein the first parameters are B1 branches and M1 bytes of unit memory.

68. (Previously presented) The method of claim 67, wherein the second parameters are B2 branches and M2 bytes of unit memory.

69. (Previously presented) The method of claim 68, wherein the B1 and M1 of the first parameter and the B2 and M2 of the second parameter are equal.

70. (Previously presented) The method of claim 68, wherein the B1 and M1 of the first parameter and the B2 and M2 of the second parameter are different.

71. (Previously presented) The method of claim 66, further comprising:

subjecting the supplemental data to a Reed-Solomon coding by adding Reed-Solomon parity data to the supplemental data; and

outputting the Reed-Solomon coded supplemental data for pre-interleaving.

72. (Previously presented) The method of claim 71, wherein an amount of the added Reed-Solomon parity data varies with an amount of the supplemental data.

73. (Previously presented) The method of claim 66, further comprising:

expanding the pre-interleaved supplemental data by inserting null data into the pre-interleaved supplemental data; and

adding headers to the expanded supplemental data.

74. (Previously presented) The method of claim 73, wherein the null data is arranged at alternating positions within the pre-interleaved supplemental data.

75. (Previously presented) The method of claim 73, wherein each header comprises an identification code identifying the expanded supplemental data.

76. (Previously presented) The method of claim 66, further comprising:

randomizing the multiplexed data; and

performing Reed-Solomon coding to the randomized data.

77. (Previously presented) The method of claim 66, further comprising:

converting the interleaved multiplexed data into symbols; and

outputting the converted symbols for formatting.

78. (New) A method of processing a digital television (DTV) signal in a DTV receiver, the method comprising:

receiving a DTV signal including a data frame, the data frame including a field sync signal containing multiplexing information, normal data, and robust data multiplexed with the normal data according to the multiplexing information, wherein predefined sequences are inserted into the robust data, the normal data result from performing a forward error correction (FEC) operation once and the robust data result from performing a forward error correction (FEC) operation twice; and

performing channel equalization on the robust data in the DTV signal using the predefined sequences in order to enhance ghost cancellation performance of the robust data.

79. (New) The method of claim 78, wherein the normal data comprise MPEG data.

80. (New) The method of claim 78, wherein the predefined sequences are inserted into the robust data periodically.

81. (New) The method of claim 78, wherein the FEC operation is Reed-Solomon encoding.

82. (New) The method of claim 78, wherein the normal data and the robust data are multiplexed in the data frame at a multiplexing ratio of 1:N.